

High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education



Pathway: Information Support & Services

Database Development & Administration

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																																
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<div>Workforce Trends</div> <div>Computer systems analysts, database administrators, and computer scientists are expected to be among the fastest growing occupations through the year 2012.</div> <div>Get the Facts</div> <div>Information Technology workers are needed in nearly every industry. The demand for technically skilled workers is growing in almost every industry, not just in those considered high-tech.</div>		<div>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</div> <div>Concurrent enrollment course offerings vary by school and district.</div>																																							

Beyond High School

There are a number of options for education and training beyond high school, depending on your career goals.

- > Certificate
- > Associate degree
- > Bachelor degree
- > Professional degree
- > On-the-job training
- > Apprenticeship
- > Military training

Sample Occupations

- > Database Administrator
- > Database Architect
- > Database Design Analyst
- > Database Developer
- > Database Engineer
- > Information Scientist

For more information on salary projections, labor market demand, and training options, visit www.careers.utah.gov

Note: For more information talk to your school counselor.

High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education



Pathway: Information Support & Services Technical Support

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Workforce Trends Growth will be driven by rapid increases in the computer and data processing services industry. Employment prospects should be favorable, especially for candidates who have either a degree in computer science or computer engineering. Get the Facts Technical support positions are in high demand both in IT and non-IT companies. Non-IT companies represent 79% of employment for IT workers.		Core Curriculum and elective requirements may vary district to district. Check with your school counselor. Concurrent enrollment course offerings vary by school and district.		Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.																																									

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- > Military training

Sample Occupations

- > Computer Operator
- > Help Desk Technician
- > Microcomputer Support
- > Network Control Operator
- > Technical Support Specialist

For more information on salary projections, labor market demand, and training options, visit www.careers.utah.gov

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High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education



Pathway: Interactive Media Digital Media (Multimedia)

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<p>Workforce Trends</p> <p>Multimedia is the field of the future and is rapidly growing. Because our global economy is driven by technology, multimedia has become one of the most in-demand fields around. With nearly 75% of Americans using the Internet and over 85 million domains registered worldwide, the demand for individuals skilled in interactive media is high.</p> <p>Get the Facts</p> <p>Multimedia programs combine art and technology to present text, images and sound in digital form.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>			<p>Career and Technical Education Recommended Pathway Courses</p> <p>(Students may select individual courses for exploration, or complete pathway for an in-depth focus.)</p> <p>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</p> <table><thead><tr><th>Course #</th><th>Introductory Courses: (preferred)</th><th>Credit</th></tr></thead><tbody><tr><td>52.0417</td><td>Computer Technology</td><td>.50</td></tr><tr><td>11.0101</td><td>Information Technology, Introduction</td><td>.50</td></tr><tr><td></td><td>Foundation Courses: (required)</td><td></td></tr><tr><td>11.0210</td><td>Multimedia I: Design & Development</td><td>1.00</td></tr><tr><td></td><td><i>Choose one of the following courses:</i></td><td></td></tr><tr><td>11.0211</td><td>Multimedia II: Production</td><td>1.00</td></tr><tr><td>11.0215</td><td>3D Graphics and Animation</td><td>1.00</td></tr><tr><td></td><td>Elective Courses:</td><td></td></tr><tr><td>11.0201</td><td>Computer Programming I</td><td>1.00</td></tr><tr><td>11.0230</td><td>Web Development I</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p>				Course #	Introductory Courses: (preferred)	Credit	52.0417	Computer Technology	.50	11.0101	Information Technology, Introduction	.50		Foundation Courses: (required)		11.0210	Multimedia I: Design & Development	1.00		<i>Choose one of the following courses:</i>		11.0211	Multimedia II: Production	1.00	11.0215	3D Graphics and Animation	1.00		Elective Courses:		11.0201	Computer Programming I	1.00	11.0230	Web Development I	1.00	32.0199	Student Internship (Critical Workplace Skills)	.50	<p>2.00 credits + 1.00 credit from introductory or elective courses</p>		<p>3.00 credits for completion</p>
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<p>Sample Occupations</p> <p>> 3-D Animator</p> <p>> Instructional Designer</p> <p>> Multimedia Artist</p> <p>> Multimedia Designer</p> <p>> Multimedia Developer</p> <p>> Multimedia Engineer</p> <p>> Product Manager</p> <p>> Web Administrator</p> <p>> Web Developer</p> <p>For more information on salary projections, labor market demand, and training options, visit www.careers.utah.gov</p>																																															

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High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education



Pathway: Interactive Media

Web Development & Administration

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<p>Workforce Trends</p> <p>The World Wide Web has changed the way we communicate and consume information. Millions of Web pages already exist, with more in the works. However, most people don't possess the technical know-how to launch an eye-catching Web site. That's the reason so many self-employed Web site designers are taking advantage of plentiful opportunities in this line of work.</p> <p>Get the Facts</p> <p>The American Institute of Graphic Arts reports that nine out of 10 artists have a college degree, most with a major in graphic design.</p>		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>																																																						

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Pathway: Network Systems

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Get the Facts The term "computer bug" was coined in the 1940s, when an insect got into a relay in a primitive electromechanical computer, causing computer malfunctions.																																																		

Sample Occupations

- > LAN Administrator
- > Network Analyst
- > Network Engineer
- > Telecommunication Manager

For more information on salary projections, labor market demand, and training options, visit www.careers.utah.gov

Note: For more information talk to your school counselor.

High School to College and Career Pathway: Secondary

Area of Study: Information Technology Education

Pathway: Programming/Software Development

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																																			
7 th Grade	8 th Grade	Middle School		High School	9 th Grade Suggested	10 th Grade Suggested	11 th Grade Suggested	12 th Grade Suggested	Beyond High School																																			
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	(1 additional credit -- class of 2011)	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none">> Certificate> Associate degree> Bachelor degree> Professional degree> On-the-job training> Apprenticeship> Military training																																			
Pre-Algebra 1.00	Elm. Algebra or Applied Math 1.00	2.00	Math	2.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	(1 additional credit -- class of 2011)																																					
Science .50	Science 1.00	1.50	Science	2.00	Earth Systems 1.00	Biological Science 1.00	(1 additional credit -- class of 2011)																																					
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	World Civilizations .50	Geography for Life .50	U.S. History II 1.00	U.S. Government and .50																																				
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life. 50 / Health Education .50 Lifetime Activities or Sport .50																																						
The Arts .50	The Arts .50	1.00	Fine Arts	1.50	Fine Arts Courses 1.50																																							
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Workforce Trends Demand for programmers to help organizations keep up with changing technology will continue. Prospects should be best for college graduates with knowledge of various programming languages and tools; those with less formal education or work experience should face keen competition.		<p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p>																																										
Get the Facts Programmers represent the largest size group of IT workers. A total of 22,000 average annual job openings are expected for computer programmers through the year 2010.																																												

Note: For more information talk to your school counselor.